What is claimed is:

Sub A1

A method of controlling ramping of a communications signal including amplitude modulation between two states including a state of minimal output power of the communications signal during which no information is conveyed and a state in of greater output power in which information is conveyed, the method comprising:

adding a predetermined sequence of symbols to a sequence of information symbols to be communicated to form an augmented sequence of symbols; and

performing modulation of the augmented sequence of symbols to produce an envelope signal that exhibits a desired ramp profile.

2. The method of Claim 1, comprising modulating a carrier signal in accordance with the envelope signal.

3. The method of Claim 1, wherein the predetermined sequence of symbols is a sequence of zero-valued symbols.

4. The method of Claim 3, wherein the communications signal is a Quadrature Amplitude Modulation signal.

5. The method of Claim 4, wherein the communications signal is an EDGE communications signal.

6. The method of Claim 4, wherein the communications signal is a D-AMPS communications signal.

7. The method of Claim 1, wherein the envelope signal is represented in digital form as samples having a sample rate.

8. The method of Claim 7, comprising altering the sample rate during at least a portion of a ramping period.

9. The method of Claim 8, wherein the sample rate is increased, resulting in ramp acceleration.

10. A method of controlling ramping of a communications signal including amplitude modulation between two states including a state of minimal output power of the communications signal during which no information is conveyed and a state in of greater output power in which information is conveyed, the method comprising producing an envelope signal having a ramp-up portion, a ramp-down portion, and a flat portion between the ramp-up portion and the ramp-down portion wherein:

the ramp-up portion is produced based on a first half of a communications pulse signal, a squared magnitude of the Fourier transform of the communications pulse signal being approximately proportional to the power spectrum of the communications signal; and

the ramp-down portion is produced based on a second half of the communications pulse signal.

11. The method of Claim 10, wherein the communications signal is a constant-envelope communications signal.

12. The method of Claim 11, wherein the communications signal is a GMSK communications signal.

13. The method of Claim 12, wherein the communications pulse signal is one used to generate EDGE communications signals.

14. The method of Claim 10, comprising modulating a carrier signal in accordance with the envelope signal.

15. The method of Claim 14, wherein the carrier signal is modulated in accordance with the envelope signal using an amplifier having separate phase and amplitude paths, comprising applying the envelope signal to the amplitude path.

16. The method of Claim 15, comprising operating the amplifier in switch mode.

A Cont.

17. Circuitry for controlling ramping of a communications signal including amplitude modulation between two states including a state of minimal output power of the communications signal during which no information is conveyed and a state of greater output power in which information is conveyed, the method comprising:

means for adding a predetermined sequence of symbols to a sequence of information symbols to be communicated to form an augmented sequence of symbols; and

a first modulator for performing modulation of the augmented sequence of symbols to produce an envelope signal that exhibits a desired ramp profile.

18. The apparatus of Claim 17, comprising a second modulator for modulating a carrier signal in accordance with the envelope signal.

19. The apparatus of Claim 17, wherein the predetermined sequence of symbols is a sequence of zero-valued symbols.

20. The apparatus of Claim 19, wherein the communications signal is a Quadrature Amplitude Modulation signal.

21. The apparatus of Claim 20, wherein the communications signal is an EDGE communications signal.

22. The apparatus of Claim 20, wherein the communications signal is a D-AMPS communications signal.

23. The apparatus of Claim 17, wherein the envelope signal is represented in digital form as samples having a sample rate.

24. The apparatus of Claim 23, comprising means for altering the sample rate during at least a portion of a ramping period.

25. The apparatus of Claim 24, wherein the sample rate is increased, resulting in ramp acceleration.

26. A ramp generator for controlling ramping of a communications signal including amplitude modulation between two states including a state of minimal output power of the communications signal during which no information is conveyed and a state in of greater output power in which information is conveyed, by producing an envelope signal having a ramp-up portion, a ramp-down portion, and a flat portion between the ramp-up portion and the ramp-down portion, comprising:

storage for storing first values corresponding to the ramp-up portion, the first values being based on a first half of a communications pulse signal, and for storing second values corresponding to the ramp-down portion, the second values being based on a second half of the communications pulse signal, a squared magnitude of the Fourier transform of the communications pulse signal being approximately proportional to the power spectrum of the communications signal; ; and

control circuitry responsive to timing signals for causing the first

values to be read out during a ramp-up interval and for causing the second values to be read out during a ramp-down interval.

27. The apparatus of Claim 26, wherein the communications signal is a constant-envelope communications signal.

28. The apparatus of Claim 27, wherein the communications signal is a GMSK communications signal.

29. The apparatus of Claim 28, wherein the communications pulse signal is one used to generate EDGE communications signals.

30. The apparatus of Claim 27, comprising a modulator for modulating a carrier signal in accordance with the envelope signal.

31. The apparatus of Claim 30, wherein the modulator comprises an amplifier having separate phase and amplitude paths, the carrier signal being applied to the phase path and the envelope signal being applied to the amplitude path.

32. The apparatus of Claim 31, wherein the amplifier is operated in switch mode.